

**SUMMARY OF HYDROLOGIC CONDITIONS  
IN THE  
UPPER DELAWARE RIVER BASIN**

**October 2002**

Prepared by the  
Office of the Delaware River Master  
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during October was excessive. The maximum daily mean discharge of 19,000 cfs occurred on October 17. The minimum daily mean discharge was 1,460 cfs on October 3.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during October was 5,478 cfs, which is 233 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs was 7,616 cfs, or 346 percent of median (water years 1961-90).

On the basis of a 12-station average, precipitation during October was 6.31 inches, which is 188 percent of the 61-year average. The maximum daily-average precipitation during the month was 2.28 inches on October 12. Precipitation in the upper Delaware River Basin during the past 12 months was 0.04 inches less than the long-term average. Precipitation during October was 2.96 inches more than the long-term average for the month.

Combined storage November 1, 2002 in Pepacton, Cannonsville, and Neversink Reservoirs was 58 percent of capacity above the point of maximum depletion. The combined storage of 156 billion gallons was 19 billion gallons more than that of one month ago and 58 billion gallons more than that of one year ago. Median storage on the first day of November in 35 years of record is 147 billion gallons.

As part of a statewide network, the USGS operates 12 observation wells in the Pennsylvania part of the Delaware River Basin. Mean water levels during October were below average in 11 of the wells. Water levels in 9 of the wells were trending upward in comparison to September levels, and water levels in 8 of the wells were below October 2001 levels. Water levels in 5 of the wells set record lows for October, and the level in 1 of the wells (Chester County well number 10) set a new period of record low regardless of month.

# HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

## PRECIPITATION, IN INCHES

|       | Dec. 1940 to Oct. 2001 |            | November 2001 to October 2002 |            |                    |            |                           |            |
|-------|------------------------|------------|-------------------------------|------------|--------------------|------------|---------------------------|------------|
|       | Average                |            | Actual                        |            | Percent of average |            | Excess (+) or deficit (-) |            |
|       | Amount                 | Cumulative | Amount                        | Cumulative | By month           | Cumulative | By month                  | Cumulative |
| Nov.  | 3.83                   | 43.18      | 1.37                          | 43.14      | 36                 | 100        | -2.46                     | -.04       |
| Dec.  | 3.36                   | 39.35      | 2.80                          | 41.77      | 83                 | 106        | -.56                      | +2.42      |
| Jan.  | 3.00                   | 35.99      | 2.03                          | 38.97      | 68                 | 108        | -.97                      | +2.98      |
| Feb.  | 2.65                   | 32.99      | 1.59                          | 36.94      | 60                 | 112        | -1.06                     | +3.95      |
| Mar.  | 3.35                   | 30.34      | 3.59                          | 35.35      | 107                | 117        | +.24                      | +5.01      |
| Apr.  | 3.73                   | 26.99      | *3.89                         | 31.76      | 104                | 118        | +.16                      | +4.77      |
| May   | 4.19                   | 23.26      | *5.94                         | 27.87      | 142                | 120        | +1.75                     | +4.61      |
| June  | 3.96                   | 19.07      | 6.32                          | 21.93      | 160                | 115        | +2.36                     | +2.86      |
| July  | 4.07                   | 15.11      | 1.46                          | 15.61      | 36                 | 103        | -2.61                     | +.50       |
| Aug.  | 3.83                   | 11.04      | 2.98                          | 14.15      | 78                 | 128        | -.85                      | +3.11      |
| Sept. | 3.86                   | 7.21       | 4.86                          | 11.17      | 126                | 155        | +1.00                     | +3.96      |
| Oct.  | 3.35                   | 3.35       | 6.31                          | 6.31       | 188                | 188        | +2.96                     | +2.96      |

Note: Amount shown in cumulative columns is total from month shown to present.

\* Revised since last month.

## STREAMFLOW, IN CFS DELAWARE RIVER AT MONTAGUE, N.J.

| Month               | 1940-2000     |        |            | 2002<br>Monthly mean | Percent of<br>median |
|---------------------|---------------|--------|------------|----------------------|----------------------|
|                     | Maximum       | Median | Minimum    |                      |                      |
| October (observed)  | 15,690 (1955) | 2,352  | 807 (1941) | 5,478                | 233                  |
| October (adjusted)  | 18,570 (1955) | 2,199  | 322 (1964) | 7,616                | 346                  |
| November (observed) | 11,760 (1951) | 4,476  | 995 (1964) |                      |                      |
| November (adjusted) | 16,160 (1972) | 5,806  | 390 (1964) |                      |                      |